DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: DINSMORE POND		Lake Area (ha):	7.69
Town: HARRISVI	LLE	Maximum depth (m):	2.5
County: Cheshire		Mean depth (m):	0.7
River Basin: Merrimac	k	Volume (m³):	51000
Latitude: 42°55'47		Relative depth:	0.7
Longitude: 72°00'31		Shore configuration:	2.24
Elevation (ft):	930	Areal water load (m/yr)	: 462.0
Shore length (m):		Flushing rate (yr^{-1}) :	694.0
Watershed area (ha):	6668.5	P retention coeff.:	0.01
<pre>% watershed ponded:</pre>	8.1	Lake type:	natural

BIOLOGICAL:	13 February 1997	22 August 1996
DOM. PHYTOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	TABELLARIA 55%
#2		
#3		ALL ALGAE SPARSE
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		1.97
DOM. ZOOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	DAPHNIA 66%
#2		KERATELLA 34%
#3		
ROTIFERS/LITER	2	15
MICROCRUSTACEA/LITER	<1	29
ZOOPLANKTON ABUNDANCE (#/L)	2	44
VASCULAR PLANT ABUNDANCE		Abundant
SECCHI DISK TRANSPARENCY (m)		2.5 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	15.4	6.5
BACTERIA (E. coli, #/100 ml) #1		74
#2		
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

CHEMICAL:	MICAL: Lake: DINSMORE POND Town: HARRISVILLE				
	13 Febru	uary 1997	22 August 1996		
DEPTH (m)	1.0		1.5		
pH (units)	5.8		6.0		
A.N.C. (Alkalinity)	1.8		3.3		
NITRATE NITROGEN	< 0.05		< 0.05		
TOTAL KJELDAHL NITROGEN	0.22		0.16		
TOTAL PHOSPHORUS	0.011		0.015		
CONDUCTIVITY (µmhos/cm)	36.6		36.3		
APPARENT COLOR (cpu)	13	·	14		
MAGNESIUM			0.57		
CALCIUM			1.7		
SODIUM			3.3		
POTASSIUM			< 0.40		
CHLORIDE	3		. 4		
SULFATE	5		4		
TN : TP	20		11		
CALCITE SATURATION INDEX			4.6		

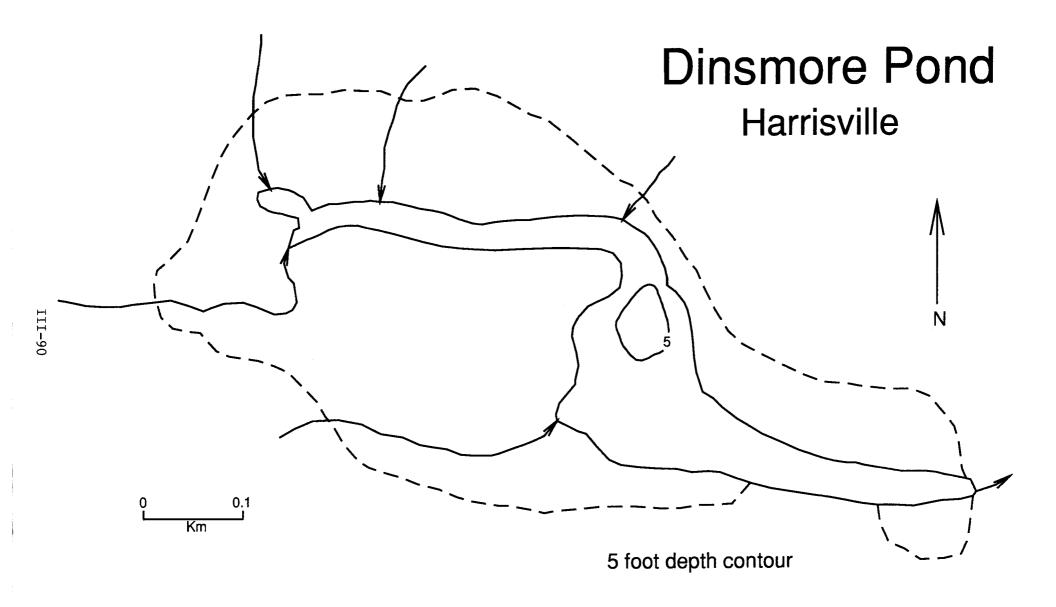
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1996

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	5	0	7	Meso.

COMMENTS:

- 1. Dinsmore Pond is more an open-water wetland than a pond. It is essentially an area of open water in Nubanusit Brook, surrounded by wetlands. It is listed as a wetland rather than a pond in DES' Clean Lakes database.
- 2. The pond drains a relatively large watershed containing numerous lakes which, along with the pond's shallowness, gives the pond a very rapid flushing rate.
- 3. No public access. Access was attained by taking the canoe down the inlet stream and portaging over beaver dams.
- 4. There were no cottages or other development on the pond.
- 5. Phytoplankton were relatively sparse.



FIELD DATA SHEET

LAKE: DINSMORE POND DATE: 08/22/96

TOWN: HARRISVILLE WEATHER: CLEAR, WARM, CALM

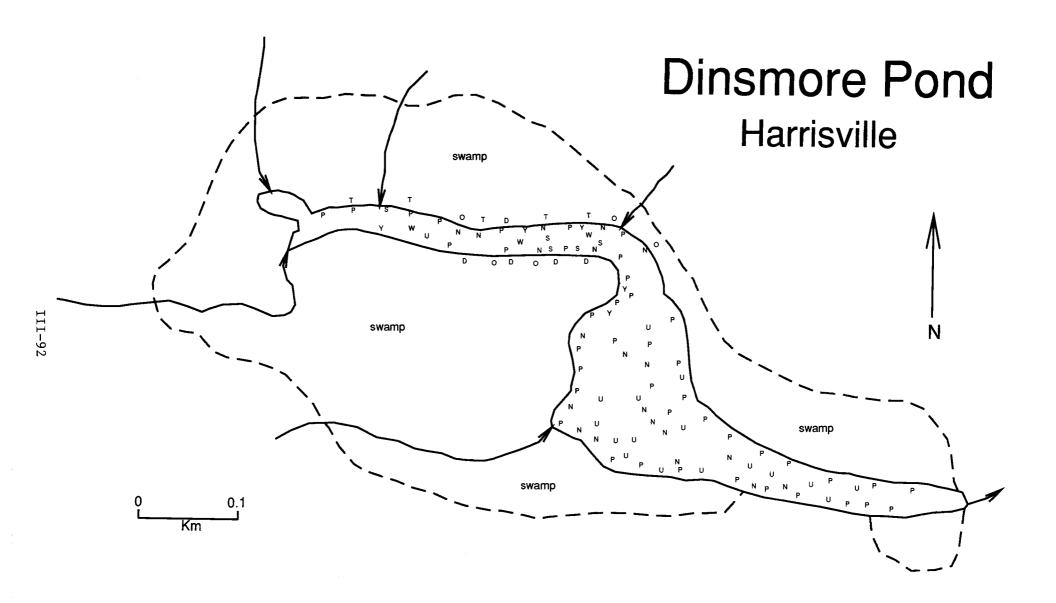
DATE: 08/22/96	WEATH	ER: CLEAR, WARM, C.	ALM
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	24.5	7.5	88 %
1.0	23.0	7.5	87 %
2.0	22.0	6.5	74 %
2.2	22.0	6.5	74 %

SECCHI DISK (m): 2.5 VOB COMMENTS:

BOTTOM DEPTH (m): 2.5

TIME: 1133

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAK	E: DINSMORE POND	TOWN: HARRISVILLE	DATE: 08/22/96
Key	PLANT	NAME	ABUNDANCE
уе <u>х</u>	GENERIC	COMMON	ADUNDANCE
Т	Typha	Cattail	Sparse
S	Sparganium	Bur reed	Scattered
P	Pontederia cordata	Pickerelweed	Abundant
N	Nymphaea	White water lily	Abundant
D	Decodon verticillatus	Swamp loosestrife	Sparse
Y	Nuphar	Yellow water lily	Scattered
U	Utricularia	Bladderwort	Abundant
W	Potamogeton	Pondweed	Scattered
0	Cephalanthus occidentalis	Buttonbush	Scattered
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	-		

OVERALL ABUNDANCE: Abundant

GENERAL OBSERVATIONS:

1. This is wide area in Nubanusit Brook surrounded by a Tamarack and red maple swamp. Plant abundance is for the stream channel, which did have an open-water channel through it, and does not include the very abundant plant growth in the surrounding wetland.